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(54) SONAR TRACKING ARRAY

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367/129, 153, 103, 87, 88

(56)References Cited

U.S. PATENT DOCUMENTS

3,886,491 A * 5/1975 Jonkey et al. 367/153

4,305,141 A	•	12/1981	Massa	367/105
4,656,616 A		4/1987	Bennett et al.	367/153
5,163,026 A		11/1992	Peynaud	367/7
5,953,287 A		9/1999	Willacy et al.	367/104

^{*} cited by examiner

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(57)**ABSTRACT**

A sonar array comprising a support structure, an acoustic projector attached to the support structure, and a plurality of directional hydrophones attached to the support structure and arranged so as to surround the acoustic projector. The directional hydrophones are equidistantly spaced about the acoustic projector. In one embodiment, the array includes means attached to the support structure that allows the support structure to be connected to a device that effects course steering of the sonar array.

5 Claims, 2 Drawing Sheets

